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Official  
Grain Standards  
of the  
United States  
for  
Wheat and Corn  
Tabulated and Abridged



ARRANGED BY  
Simonds-Shields Grain Co.  
KANSAS CITY, MO.

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SIMONDS-SHIELDS-LONSDALE GRAIN CO.

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JUL 25 1917 ✓

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## IMPORTANT NOTICE

U. S. standards of quality and condition for Hard Red Winter Wheat, Soft Red Winter Wheat, Common White Wheat and White Club Wheat, effective July 1, 1917.

For all other wheat, August 1, 1917.

The following suggestions made by the U. S. Department of Agriculture are good ones, and if followed closely should result to your benefit. They apply equally to wheat as well as corn.

Interstate and export shipments by grade of shelled corn come under the provisions of the United States Grain Standards Act.

## GET HIGH GRADES FOR YOUR CORN Avoid Expensive Delays by Handling and Loading Your Grain Properly

Licensed inspectors can not with safety issue certificates of grade on interstate or foreign shipments of shelled corn unless the conditions permit them to determine the true grade of the grain. If the car is loaded too full, or if the grain in it is not uniform as to color, moisture content, damaged, foreign material, etc., it will be difficult for the inspectors to secure representative samples; the car may even have to be partially unloaded before the inspection can be completed. This may take several days.

## How You Can Aid Inspectors and Facilitate Grading

1. Carefully classify grain received. This should be done by quality, condition, and color.

2. Reserve at least 1 bin for loading purposes. This is in order that corn can be "run," cleaned, conditioned, and mixed.

3. Clean the grain before loading. This helps to insure a high commercial grade and tends to prevent deterioration in transit.

4. Clean the car thoroughly before loading. Such matter as coal, fertilizer, etc., on the floor of a loaded car often results in otherwise good grain being graded as "sample" or other low grade.

5. Carefully cooper cars and watch for leaky roofs.

6. Don't mix in other colors when shipping grain of a given color.

7. Leave at least 30 inches of space between grain and roof of car. Load the grain uniformly and then level it down. If the proper space is not left between the top line of the grain and the roof of the car a representative sample of the grain can not be secured.

8. Avoid concentrating dirt, broken grains and meal. If such materials accumulate near the doors or otherwise, distribute it by hand shoveling.

9. Take a representative sample of the loaded grain. This should be done by probing in at least five different places with a 60-inch trier. The sample should be tested for every factor to determine what grade the grain inspector may be expected to place upon the lot.

For Further Information Apply to  
**U. S. DEPARTMENT OF AGRICULTURE,**  
Office of Markets and Rural Organization,  
Washington, D. C.

## OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR WHEAT

Section 1. Basis of determination.—Each determination, other than that of dockage, for the purposes of these standards shall be



made upon the basis of the grain when free from dockage.

**Sec. 2. Percentages.**—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

**Sec. 3. Dockage.**—Dockage includes sand, dirt, weed seeds, weed stems, chaff, straw, grain other than wheat, and any other foreign material which can be removed readily from the wheat by the use of appropriate sieves, cleaning devices, or other practical means suited to separate the foreign material present; also undeveloped, shriveled, and small pieces of wheat kernels necessarily removed in properly separating the foreign material. The quantity of dockage shall be calculated in terms of percentage based on the total weight of the grain, including the dockage. The percentage of dockage so calculated shall be stated in terms of whole per centum and half per centum. A fraction of a per centum when equal to, or greater than, a half shall be treated as a half, and when less than a half shall be disregarded. The percentage of dockage so determined and stated shall be added to the grade designation.

(For size and specifications regarding sieves to determine dockage of wheat, see page 21.)

**Sec. 4. Wheat.**—Any grain which, when free from dockage, contains more than six per centum of grain of a kind or kinds other than wheat shall not be classed as wheat.

**Sec. 9.—Test Weight per Bushel.**—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin 472, dated October 30, 1916, issued by the United States Department of Agriculture, or as determined by any device giving equivalent results.

**Sec. 10. Percentage of Moisture.**—Percentage of moisture in wheat shall be that, or the equivalent of that, ascertained by the moisture tester and the method of use thereof described in Circular 72, and supplement thereto, issued by the United States Department of Agriculture, Bureau of Plant Industry.

**Sec. 11. Heat-damaged Kernels.**—Heat-damaged kernels shall be kernels of wheat which have been distinctly discolored as a result of heating caused by fermentation.

**Sec. 12. Inseparable Foreign Material.**—Inseparable foreign material shall include all matter other than wheat which is not separated from the wheat in the proper determination of dockage.

**Sec. 6. Mixed Wheat.**—Mixed wheat shall be any mixture of wheat not provided for in the classes from I to VI, inclusive, defined in Section 5.

### **GRADES FOR MIXED WHEAT.**

**Sec. 21. Grades for Mixed Wheat.**—Mixed wheat shall be graded and designated according to the grade requirements of the class of wheat which predominates over each other class in the mixture. There shall be added to, and made a part of, its grade designation the word "Mixed" and the names of the classes which compose the mixture, in the order of their predominance, together with the approximate percentage of each class, except that, if the wheat of any class amounts to less than ten per centum of the whole mixture, its name and percentage need not be stated.

**Sec. 8. Treated Wheat.**—Treated wheat shall be wheat which has been scoured, limed, washed, or treated in any similar manner.

### **GRADES FOR TREATED WHEAT.**

**Sec. 23. Grades for Treated Wheat.**—Treated wheat shall be graded and designated according to the grade requirements of the standard applicable to such wheat if it were not treated, and there shall be added to, and made a part of, its grade designation a statement indicating the kind of treatment.

**Sec. 7. Smutty Wheat.**—Smutty wheat shall be all wheat which has an unmistakable odor of smut, or which contains spores, balls, or portions of balls, of smut, in excess of a quantity equal to one ball of average size in fifty grams of wheat.



## GRADES FOR SMUTTY WHEAT.

Sec. 22. Grades for Smutty Wheat.—  
Smutty wheat shall be graded and designated according to the method described either in paragraph (a) or paragraph (b) of this section.

(a) The loss in weight caused by the removal of smut from the wheat, when free from dockage, shall be ascertained by scouring, washing, or otherwise, and shall be calculated in terms of percentage based on the total weight of the grain free from dockage. The percentage so calculated shall be stated in terms of whole per centum and half per centum. A fraction of a per centum when equal to, or greater than, a half, shall be treated as a half, and when less than a half shall be disregarded. After the loss in weight caused by the removal of the smut has been ascertained, the wheat shall be graded and designated according to the grade requirements of the standard applicable to such wheat if it were not smutty, and there shall be added to, and made a part of, the grade designation the percentage so determined and stated together with the words "smut dockage."

(b) Smutty wheat shall be graded and designated according to the grade requirements of the standard applicable to such wheat if it were not smutty, except that when the amount of smut present is so great that any one or more of the grade requirements of the grades from No. 1 to No. 5, inclusive, cannot accurately be applied, the wheat shall be classified as sample grade. For all grades there shall be added to and made a part of the grade designation the word "Smutty."

### Class III.

#### **HARD RED WINTER WHEAT.**

This class shall include all varieties of hard red winter wheat, but shall not include more than ten per centum of other wheat or wheats. This class shall be divided into three sub-classes as follows:

##### **Dark Hard Winter.**

This subclass shall include wheat of the class Hard Red Winter of which ninety per centum or more consists of dark, hard, and vitreous kernels.

##### **Hard Winter.**

This subclass shall include wheat of the class Hard Red Winter of which less than ninety per centum and more than twenty-five per centum consists of dark, hard, and vitreous kernels.

##### **Yellow Hard Winter.**

This subclass shall include wheat of the class Hard Red Winter which consists of kernels of yellow or mottled appearance, or of starchy texture, and of not more than twenty-five per centum of dark, hard and vitreous kernels.

**Sample Grade Dark Hard Winter, Sample Grade Hard Winter, and Sample Grade Yellow Hard Winter.**

Each shall be wheat of the subclass Dark Hard Winter, or Hard Winter, or Yellow Hard Winter, respectively, which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive, or has any commercially objectionable foreign odor, except smutty wheat, or is distinctly musty or very sour, or is hot, heating, fire-burned, infested with live weevil, or otherwise of distinctly low quality, or contains garlic or wild onion bulbets, or has an unmistakable odor of garlic or wild onions, or contains small, inseparable stones or cinders.



# HARD RED WINTER WHEAT

## GRADE

(For Sample Grade see page 6.)

Shall include dark, hard and vitreous kernels.  
%

Dark Hard No. 1 95 or more and sound

Hard No. 1 Less than 90; more than 25  
Yellow Hard No. 1 Not more than 25

Dark Hard No. 2 90 or more  
No. 2 Less than 90; more than 25  
Yellow Hard No. 2 Not more than 25

Dark Hard No. 3 90 or more  
No. 3 Less than 90; more than 25  
Yellow Hard No. 3 Not more than 25

Dark Hard No. 4 90 or more  
No. 4 Less than 90; more than 25  
Yellow Hard No. 4 Not more than 25

Dark Hard No. 5 90 or more  
No. 5 Less than 90; more than 25  
Yellow Hard No. 5 Not more than 25

Bright, cool and sweet

Bright, cool and sweet

Cool and sweet

Cool and sweet

Cool and sweet

Cool, but may be slightly musty or slightly sour

Maximum Wheat of other Classes

Which may include common white, white club or common and red durum singly or in comb, not to exceed %

Total %

2

2

4

6

10

10

Maximum Moisture content %

13

13

13

14

14

15

Minimum Test Wgt. lbs.

61

61

59

57

55

53

Maxim. damaged Kernels

Which may include heat-damaged %

Total %

1

1

4 1-10 of 1%

7

10

15

Maximum inseparable Foreign Material

Which may include king-head, corn cockle, vetch, daniel or wild rose either singly or in any comb, not to exceed %

Total %

1/2 of 1%

1/2 of 1%

1/2 of 1%

1

2

3

## **Class IV.**

### **SOFT RED WINTER WHEAT.**

This class shall include all varieties of soft red winter wheat, also red club and red hybrid wheats of the Pacific Northwest, but shall not include more than ten per centum of other wheat or wheats. This class shall be divided into three subclasses, as follows:

#### **Red Winter.**

This subclass shall include wheat of the class Soft Red Winter of both light and dark colored kernels, but shall not include more than ten per centum of wheat of the subclass Red Walla, nor any wheat which contains garlic or wild onion bulblets or has an unmistakable odor of garlic or wild onions.

#### **Red Walla.**

This subclass shall include wheat of the class Soft Red Winter which consists of more than ten per centum, either singly or in any combination of Red Russian, red clubs, red hybrids, and other soft red winter wheats possessing the characteristics of those varieties as grown west of the Great Plains area of the United States, but shall not include any wheat which contains garlic or wild onion bulblets or has an unmistakable odor of garlic or wild onions.

#### **Soft Red.**

This subclass shall include wheat of the class Soft Red Winter which contains garlic or wild onion bulblets or has an unmistakable odor of garlic or wild onions.



# RED WINTER WHEAT

GRADE	Maximum Wheat of other Classes.		Maximum Moisture content %	Minimum Test weight lbs.	Maximum damaged kernels		Maximum inseparable foreign material	
	Total %	Which may include common and red durum not to exceed %			Total %	Which may include heat-damaged %	Total %	Which may include kingnead, corn cockle, vetch, darnel or wild rose either singly or in any combination not to exceed %
1	2	1	13	61	1	None	½ of 1%	½ of 1%
2	4	1	13	59	4	1/10 of 1%	1	½ of 1%
3	6	1	14	57	7	½ of 1%	2	1
4	10	1	14	55	10	1	4	2
5	10	1	15	53	15	3	6	3
Shall not contain garlic or wild onion bulbets or an unmix- tatable odor of same. Bright Cool and sweet Cool and sweet Cool and sweet Cool and sweet Cool but may be slightly musty or slightly sour								

Sample—Shall be wheat of the subclass Red Winter which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive, or has any commercially objectionable foreign odor, except smutty wheat, or is distinctly musty or very sour, or is hot, heating, fire-burned, infested with live weevil, or otherwise of distinctly low quality, or contains small, inseparable stones or cinders.

# SOFT RED WHEAT

GRADE	Maximum Wheat of other Classes.		Maximum Moisture content %	Minimum Test weight lbs.	Maximum damaged kernels		Maximum inseparable foreign material		
	Total %	Which may include common and red durum not to exceed %			Total %	Which may include heat-damaged %			
Shall contain garlic or wild onion bulbs or an unmix-takable odor of same.	Bright	2	1	13	61	1	None	1½ of 1%	¼ of 1%
	Cool and sweet	4	1	13	59	4	1/10 of 1%	1	½ of 1%
	Cool and sweet	6	1	14	57	7	½ of 1%	2	1
	Cool and sweet	10	1	14	55	10	1	4	2
	Cool but may be slightly musty or slightly sour	10	1	15	53	15	3	6	3

Sample—Shall be wheat of the subclass Soft Red which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive, or has any commercially objectionable foreign odor, except smutty wheat, or is distinctly musty or very sour, or is hot, heating, fire-burned, infested with live weevil, or otherwise of distinctly low quality; or contains small, inseparable stones or cinders; and shall contain garlic or wild onion bulbs, or have an unmistakable odor of garlic or wild onions.



# RED WALLA WHEAT

GRADE	Maximum Wheat of other Classes.		Maximum Moisture content %	Minimum Test weight lbs.	Maximum damaged kernels		Maximum inseparable foreign material
	Total %	Which may include common and red durum not to exceed %			Total %	Which May include heat-damaged %	
1	2	1	13	60	1	None	Which may include kinghead, corn cockle, vetch, darnel or wild rose either singly or in any combination not to exceed %
2	4	1	13	58	4	1/10 of 1%	1/4 of 1%
3	6	1	14	56	7	1/2 of 1%	1/2 of 1%
4	10	1	14	54	10	1	1
5	10	1	15	52	15	3	2
Shall not contain earlie or wild onion bulbs or an unis-takable odor of same.							3
Oool but may be slightly musty or slightly sour							
Cool and sweet							
Cool and sweet							
Cool and sweet							
Cool and sweet							
Bright							

Sample—Shall be wheat of the subclass Red Walla which does not come within the requirements of any of the grades from No. 1 to 5, inclusive, or has any commercially objectionable foreign odor, except smutty wheat, or is distinctly musty or very sour, or is hot, heating, fire-burned, infested with live weevil, or otherwise of distinctly low quality, or contains small, inseparable stones or cinders.

**HARD RED SPRING WHEAT.**

This class shall include all varieties of hard red spring wheat, but shall not include more than ten per centum of other wheat or wheats. This class shall be divided into four subclasses as follows:

**Dark Northern Spring.**

This subclass shall include wheat of the class Hard Red Spring of which eighty-five per centum or more consists of dark, hard, and vitreous kernels, but shall not contain more than ten per centum of wheat of the variety Humpback.

**Northern Spring.**

This subclass shall include wheat of the class Hard Red Spring of which less than eighty-five per centum and more than twenty-five per centum consists of dark, hard, and vitreous kernels, but shall not contain more than ten per centum of wheat of the variety Humpback.

**Red Spring.**

This subclass shall include wheat of the class Hard Red Spring which consists of kernels of yellow or mottled appearance, or of starchy texture, and of not more than twenty-five per centum of dark, hard, and vitreous kernels, but shall not contain more than ten per centum of wheat of the variety Humpback.

**Red Spring Humpback.**

This subclass shall include wheat of the class Hard Red Spring of which more than ten per centum consists of wheat of the variety Humpback.

**Sample Grade Dark Northern Spring, Sample Grade Northern Spring, and Sample Grade Red Spring.** Each shall be wheat of the subclass Dark Northern Spring, or Northern Spring, or Red Spring, respectively, which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive, or has any commercially objectionable foreign odor, except smutty wheat, or is distinctly musty or very sour, or is hot, heating, fire-burned, infested with live weevil, or otherwise of distinctly low quality, or contains garlic or wild onion bulblets, or has an unmistakable odor of garlic or wild onions, or contains small, inseparable stones or cinders.



# DARK NORTHERN SPRING, NORTHERN SPRING AND RED SPRING WHEAT

## GRADE

(For Sample Grade  
see page 12.)

Shall include dark, hard  
and vitreous kernels.  
%

Dk. Nor. Spg. No. 1  
Nor. Spg. No. 1  
Red Spg. No. 1

85 or more  
Less than 85 more than 25  
Not more than 25

Bright, cool  
and sweet

Dk. Nor. Spg. No. 2  
Nor. Spg. No. 2  
Red Spg. No. 2

85 or more  
Less than 85 more than 25  
Not more than 25

Cool and sweet

Dk. Nor. Spg. No. 3  
Nor. Spg. No. 3  
Red Spg. No. 3

85 or more  
Less than 85 more than 25  
Not more than 25

Cool and sweet

Dk. Nor. Spg. No. 4  
Nor. Spg. No. 4  
Red Spg. No. 4

85 or more  
Less than 85 more than 25  
Not more than 25

Cool and sweet

Dk. Nor. Spg. No. 5  
Nor. Spg. No. 5  
Red Spg. No. 5

85 or more  
Less than 85 more than 25  
Not more than 25

Cool but may be  
slightly musty  
or slightly sour

Maximum wheat  
of the variety of  
Humpback and  
wheat of other  
classes

Which may  
include com-  
mon white,  
white club or  
common and  
red durum  
either singly  
or in any  
comb. not to  
exceed %

Total  
%

2

1

Maximum  
Moisture  
content %

13.5

Minimum  
Test  
Wgt. lbs.

59

1

Which  
may  
include  
heat-  
damaged  
%

Total  
%

None

1/2 of 1%

Maximum  
damaged  
kernels

Maximum inseparable  
foreign material

Which may  
include king-  
head, corn  
cockle, vetch,  
darnel or wild  
rose either  
singly or in  
any comb. not  
to exceed %

Total  
%

1/2 of 1%

1/2 of 1%

1

2

3

## RED SPRING HUMPBACK WHEAT

RED SPRING HUMPBACK WHEAT									
GRADE		Maximum Wheat of other Classes.		Maximum Moisture content %	Minimum Test weight lbs.	Maximum damaged ernels		Maximum inseparable foreign material	Which may in-clude kinghead, corn cockle, vetch darnel or wild rose either singly or in any combi-nation not to exceed %
		Total %	Which may include heat-damaged %			Total %	Total %		
1	Bright Cool and sweet	2	1	13.5	59	1	None	½ of 1%	¼ of 1%
2	Cool and sweet	4	2	14.5	57	4	1/10 of 1%	1	½ of 1%
3	Cool and sweet	6	3	14.5	55	7	½ of 1%	2	1
4	Cool and sweet	10	5	15.5	53	10	1	4	2
5	Cool but may be slightly musty or slightly sour	10	5	15.5	51	15	3	6	3

Sample—Shall be wheat of the subclass Red Spring Humpack which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive, or has any commercially objectionable foreign odor, except smutty wheat, or is distinctly musty or very sour, or is hot, heating, fire-burned, infested with live weevil, or otherwise of distinctly low quality, or contains garlic or wild onion bulbets, or has an unmistakable odor of garlic or wild onions, or contains small, inseparable stones or cinders.



## Class II.

### Common and Red Durum.

This class shall include all varieties of durum wheat, but shall not include more than ten per centum of other wheat or wheats. This class shall be divided into three subclasses as follows:

#### Amber Durum.

This subclass shall include wheat of the class Common and Red Durum of which seventy-five per centum or more consists of kernels of amber color and texture, but shall not contain more than ten per centum of wheat of the variety Red Durum.

#### Durum.

This subclass shall include wheat of the class Common and Red Durum which consists of kernels of yellow or mottled appearance, or of starchy texture, and of less than seventy-five per centum of kernels of amber color and texture, but shall not contain more than ten per centum of wheat of the variety Red Durum.

#### Red Durum.

This subclass shall include wheat of the class Common and Red Durum which consists of more than ten per centum of wheat of the variety Red Durum.

#### Sample Grade Amber Durum and Sample Grade Durum.

Each shall be wheat of the subclass Amber Durum or Durum, respectively, which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive or has any commercially objectionable foreign odor, except smutty wheat, or is distinctly musty or very sour, or is hot, heating, fire-burned, infested with live weevil or otherwise of distinctly low quality, or contains garlic or wild onion bulbets, or has an unmistakable odor of garlic or wild onions, or contains small, inseparable stones or cinders.

# AMBER DURUM AND DURUM WHEAT

AMBER DURUM AND DURUM WHEAT									
GRADE		Maximum Wheat of the variety of Red Durum and of Wheat of other classes		Maximum Moisture content %	Minimum Test weight lbs.	Maximum damaged kernels		Maximum inseparable foreign material	Which may include kinghead, corn cockle, vetch, darnell or wild rose either singly or in any combination not to exceed %
		Total %	Which may include common white, white club or soft red winter either singly or in any combination not to exceed %			Total %	Which may include heat-damaged %		
1	Bright Cool and sweet	2	1*	13.5	61	1	None	1/2 of 1%	1/4 of 1%
2	Cool and sweet	10	5	14.5	59	4	1/10 of 1%	1	1/2 of 1%
3	Cool and sweet	10	5	14.5	57	7	1/2 of 1%	2	1
4	Cool and sweet	10	5	15.5	55	10	1	4	2
5	Cool but may be slightly musty or slightly sour	10	5	15.5	53	15	3	6	3

Sample see page 15.  
 Note \* Grade No. 1 will permit full 2% Red Durum.

# RED DURUM WHEAT

GRADE	Maximum Wheat of other Classes.		Maximum Moisture content %	Minimum Test weight lbs.	Maximum damaged kernels		Maximum inseparable foreign material
	Total %	Which may include common white, white club or soft red winter either singly or in any combination not to exceed %			Total %	Which may include heat-damaged %	
95% or more of the variety red durum. Bright, Cool and sweet							Which may include kinghead, corn cockle, vetch, darnel or wild rose either singly or in any combination not to exceed %
1	2	1	13.5	61	1	None	1/2 of 1%
2	4	2	14.5	59	4	1/10 of 1%	1/2 of 1%
3	6	3	14.5	57	7	1/2 of 1%	1
4	10	5	15.5	55	10	1	2
5	10	5	15.5	53	15	3	3

Sample—Shall be wheat of the subclass Red Durum which does not come within the requirements of any of the grades from No. 1 to 5, inclusive, or has any commercially objectionable foreign odor, except smutty wheat, or is distinctly musty or very sour, or is hot, heating, fire-burned, infested with live weevil, or otherwise of distinctly low quality, or contains garlic or wild onion bulblets, or has an unmistakable odor of garlic or wild onions, or contains small, inseparable stones or cinders.



## Class V.

### COMMON WHITE WHEAT.

This class shall include all varieties, except Sonora, of common white wheat, whether winter or spring grown, but shall not include more than ten per centum of other wheat or wheats. This shall be divided into two subclasses, as follows:

#### Hard White.

This subclass shall include (white) Bluestem, early Baart, Allen or Red Allen, Galgalos (white), Martin Amber, and wheats possessing similar characteristics, of the class Common White, but shall not include more than twenty per centum of kernels of soft and chalky texture.

#### Soft White.

This subclass shall include wheat of the class Common White which contains more than twenty per centum of kernels of soft and chalky texture, and all wheat of the class Common White not included in the subclass Hard White.

#### Sample Grade Hard White and Sample Grade Soft White.

Each (a) shall be wheat of the subclass Hard, White or Soft White, respectively, which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive, or has any commercially objectionable foreign odor, except smutty wheat, or is distinctly musty or very sour, or is hot, heating, fire-burned, infested with live weevil, or otherwise of distinctly low quality, or contains garlic or wild onion bulbets, or has an unmistakable odor of garlic or wild onions, or contains small, inseparable stones or cinders.

# COMMON WHITE WHEAT

		Maximum Wheat of other Classes.		Maximum Moisture content %	Minimum Test weight lbs.	Maximum damaged kernels		Maximum inseparable foreign material
		Total %	Which may include com- mon and red durum not to exceed %			Total %	Which may include heat- damaged %	
Hard White Soft White GRADE								Which may in- clude kinghead, corn cockle, vetch, darnel or wild rose either singly or in any com- bination not to exceed %
1	Bright Cool and sweet	2	1	13	60	1	None	1/2 of 1%
2	Cool and sweet	4	1	13	58	4	1/10 of 1%	1/2 of 1%
3	Cool and sweet	6	1	14	56	7	1/2 of 1%	1
4	Cool and sweet	10	1	14	54	10	1	2
5	Cool but may be slightly musty or slightly sour	10	1	15	52	15	3	3

Sample see page 18.

This Class shall include all varieties and hybrids of white club wheat, and the common white wheat known as Sonora, but shall not include more than ten per centum of other wheat or wheats.

## CLASS VI.—WHITE CLUB WHEAT

GRADE	Maximum Wheat of other Classes.		Maximum Moisture content %	Minimum Test weight lbs.	Which may include heat- damaged %		Total %	Which may in- clude kinghead, corn cockles, vetch, darnel or wild rose either singly or in any com- bination not to exceed %
	Total %	Which may include heat- damaged %						
					Which may include com- mon and red durum not to exceed %			
1	Bright Cool and sweet	2	1	60	1	None	1/2 of 1%	1/4 of 1%
2	Cool and sweet	4	1	58	4	1/10 of 1%	1	1/2 of 1%
3	Cool and sweet	6	1	56	7	1/2 of 1%	2	1
4	Cool and sweet	10	1	54	10	1	4	2
5	Cool but may be slightly musty or slightly sour	10	1	52	15	3	6	3

Sample (a) shall be wheat of the class White Club which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive, or has any commercially objectionable foreign odor, except smutty wheat, or is distinctly musty or very sour, or is hot, heating, fire-burned, infested with live weevil, or otherwise of distinctly low quality, or contains garlic or wild onion bulbets, or has an unmistakable odor of garlic or wild onions, or contains small, inseparable stones or cinders.

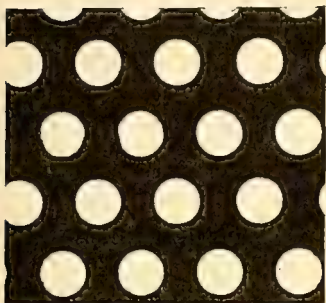


## GRAIN SIEVES.

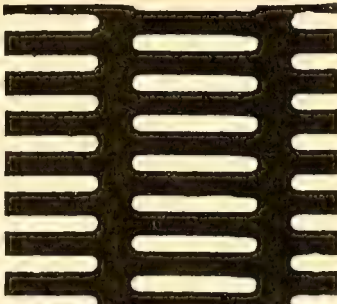
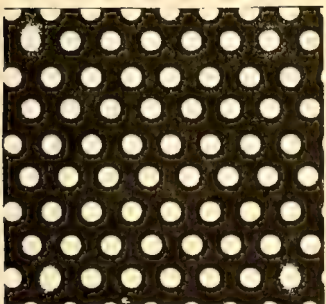
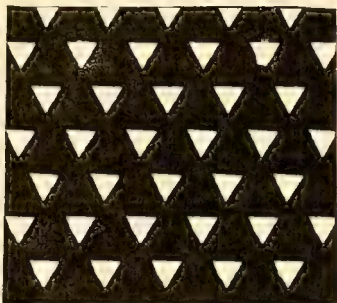
### For the Determination of Dockage Under the Official Grain Standards of the United States for Wheat

Sieves and bottom pan for each set should be circular in shape and made of aluminum, brass or other suitable material. The metal should be .025 to .035 inches in thickness.

Scalper Sieve:—perforations 12-64 inch in diameter



Buckwheat Sieve:—perforations exactly 8-64 inch on each side



Fine Seed Sieve:—perforations exactly 1-12 inch in diameter

Chess Sieve:—perforations exactly  $4\frac{1}{2}$ -64 inch x  $\frac{1}{2}$  inch

(a) Bottom Pan—Inside diameter should be  $13\frac{1}{8}$  inches; depth  $2\frac{1}{2}$  inches; and roll at top of pan  $\frac{3}{8}$  inch in diameter.

NOTE—Sieves should be made to nest very freely with the bottom pan. The scalper sieve should nest very freely with each of the other sieves and also with the bottom pan.

The accompanying views of sections of perforated metal show the arrangement and kind of perforations desired and the proportional amount of metal between perforations. The perforations should be the exact size as given in the specifications for the sieves and should extend completely across the bottom and up to the sides of each sieve. The smooth surface of the metal should face up.

# FEDERAL CORN GRADES

In effect Dec. 1, 1916.

Grade number of White Corn, Yellow Corn, or Mixed Corn.	Per centum of moisture not more than—	Per centum of foreign material and cracked corn not more than—	DAMAGED CORN.		Minimum Test weight per Winchester bushel.
			Total per centum not more than—	Total per centum may include per centum of heat- damaged and mahogany kernels not more than—	
1*-----	14.0	2		.0	Pounds.
2*-----	15.5	3	2	.0	55
3*-----	17.5	4	4	.0	53
4*-----	19.5	5	6		-----
5*-----	21.5	6	8	0.5	-----
6†-----	23.0	7	10	1.0	-----
			15	3.0	-----

\*The corn in grades Nos. 1 to 5, inclusive, must be sweet.

†The corn in grade No. 6 may be musty or sour and may include corn that is immature and badly blistered.

SAMPLE GRADE.—Shall be corn which does not come within the requirements of the grades for white corn, the grades for yellow corn, and the grades for mixed corn, including corn that is hot, fire burned, infested with live weevil or otherwise of distinctly low quality.

## DEFINITION OF TERMS USED ABOVE.

- (1) **White Corn.**—Corn of which at least 98 per centum by weight of the kernels are white. A slight tinge of light straw color or of pink on kernels of corn otherwise white shall not affect their classification as white corn.
- (2) **Yellow Corn.**—Corn of which at least 95 per centum by weight of the kernels are yellow. A slight tinge of red on kernels of corn otherwise yellow shall not affect their classification as yellow corn.
- (3) **Mixed Corn.**—Corn of various colors not coming within the limits for color as provided in the definitions of white corn and yellow corn. White capped yellow kernels shall be classified as mixed corn.
- (4) **Foreign Material and Cracked Corn.**—Kernels and pieces of kernels of corn and all matter, other than corn, which will pass through a metal sieve perforated with round holes fourteen sixty-fourths of an inch in diameter, and all foreign material remaining on the sieve after the sample of the corn involved has been screened.
- (5) **Heat-Damaged and Mahogany Kernels.**—Kernels of corn which have been discolored as a result of heating caused by fermentation or as a result of fire.
- (6) **Per Centum.**—In case of foreign material and cracked corn, damaged corn, and heat-damaged and mahogany kernels, is the percentage ascertained by weight.
- (7) **Per Centum of Moisture.**—The percentage of moisture contained in corn (maize), which shall be equivalent to that ascertained by the moisture tester and the method of use thereof described in Circular No. 72, and supplement thereto, issued by the U. S. Department of Agriculture, Bureau of Plant Industry.



# WEIGHTS PER BUSHEL OF GRAIN AND SEEDS.

Wheat .....	60
Buckwheat .....	52
Corn, shelled.....	56
Corn, unshelled.....	70
Corn Meal.....	50
Corn, Kafir.....	56
Milo .....	56
Feterita .....	56
Oats .....	32
Rye .....	56
Barley .....	48
Spetz .....	40
Bran .....	20
Cane Seed .....	50
Sorghum Seed .....	48
Clover Seed .....	60
Timothy Seed .....	45
Millet Seed .....	50
Cotton Seed .....	33
Blue Grass Seed .....	14
Redtop Seed .....	14
Orchard Grass Seed.....	14
Hemp Seed .....	44
Flax Seed.....	56

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